

ABSTRACT OF THE DISCLOSURE

A surveillance system and method for identifying chemical, biological or nuclear attacks or hazards occurring within a large area which combines data derived from a modeling and simulation operation with a surveillance data input. The modeling and simulation operation involves continuous periodic runs of multiple scenarios for various biological, chemical and nuclear agents in various concentrations for a given location. Using real time weather data for each location, a model is made in a database of the effect various concentrations of agents would have at that location and this simulated model is processed. The surveillance data input monitors actual human signs and symptoms for the modeled area. This data with real time weather data is compared with the results of modeling and simulation data for the area to determine if a pattern matching that for any modeled agent is present.